Harnett County Schools



Grades K-8 Common Core Learning Experience

**Unit Theme: Cycles 3rd Quarter Grade: 2nd grade**

*K-8 teachers should collaborate in the implementation of this learning unit. The decision as to the length of instruction of the unit (days), specific activities selected, resources used, etc. will be made within the team or the Professional Learning Team (PLT) at each school.*

**Common Core/Essential Standards:  
Priority Standards *(2 ELA, 2 Math, 1 Science, 1 Social Studies, 1 Healthful Living, 1 Writing, 1 Fine Arts,   
 1 Math Practices)***

ELA – RL 2.9, SL 2.6

RL.2.9 – Compare and contrast two or more versions of the same story by different authors or from different cultures.  
SL.2.6 – Produce complete sentences when appropriate to task and situation in order to provide requested detail or clarification.  
  
Math – 2.MD.2, 2.MD.3

2.MD.2 - Measure the length of an object twice, using lengths of units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen  
2.MD.3 – Estimate lengths using units of inches, feet, centimeters, and meters  
  
Science – 2.E.1.2

2.E.1.2 – Summarize weather conditions using qualitative and quantitative measures to describe temperature, wind direction, wind speed, and precipitation  
  
Math Practices - #5

#5 – Use appropriate tools strategically.  
  
Writing – W.2.1

W.2.1 – Write opinion pieces in which they introduce the topic or book they are writing about, state an opinion, supply reasons that support the opinion, use linking words (e.g. because, and, also) to connect opinion and reasons, and provide a concluding statement or section  
  
Healthful Living – 2.PCH.2.2

2.PCH.2.2 – Explain the dangers associated with excessive sun exposure (e.g., sun burn, damage to eyes, skin cancer) and methods for protecting oneself from these dangers

Fine Arts – 2.CP.1.1

2.CP.1.1 – Use basic elements of movement to generate short dance phrases.

Social Studies – 2.G.2.1

2.G.2.1 – Give examples of ways in which people depend on the physical environment and natural resources to meet basic needs.

**Supporting Standards**Science – 2.E.1.4

2.E.1.4 – Recognize the tools that scientists use for observing, recording, and predicting weather changes from day to day and during the seasons.

**Essential Question:**

How do cycles impact daily living?

**Learning Target(s) “I can...”:**

I can identify cycles, and how cycles affect my daily life.

**Criteria for Success “I will...”:**

I will be able to describe cycles using visuals, tools, movements, words, and literature.

**Time Frame for Unit:**

Minimum of 10 days

**Summative Assessment:**

Students will create a digital newscast on weather cycles and present it to the class. These activities will incorporate different aspects of the unit. Students will reflect on their own group’s presentation and critique other group’s presentations using the rubric. Students will also compare and contrast their newscast to a real newscast.

**Prior Knowledge:**

Students will need to understand what a newscast is, the definition of a cycle, and what weather involves. Students will also have to understand how to make a prediction.

**Vocabulary:**

Cycle, compare, contrast, change, opinion, patterns, estimate, cause, effect, impact, climate, prediction, meteorology, weather

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| **Unit Designers: (Teacher/School)**  Letitia Webb (Anderson Creek), Tangela Robinson (Coats Elementary), Marla Kay Blakley (Johnsonville), Lisa Denning (North Harnett Primary), Katie Knodel (Boone Trail Elementary), Alise Borachok (Buies Creek Elementary) |

**ELA Activity (Brief Description):**

Using variations of the Cinderella story, students will create a double bubble map to analyze how climate and weather affect the story. Students will write a paragraph comparing the differences and similarities from the double bubble map.

**Supporting Standards:**

W.2.8, RL.2.2, RL.2.7

**Vocabulary:**

Double bubble map, compare, contrast, setting, climate

**Resources (print materials, technology, etc.):**

Multiple versions of the Cinderella story, double bubble maps

**Question Stems (Using *Revised Bloom’s Taxonomy*):**

How would you explain how weather affects the two different Cinderella stories?  
What would happen if the weather had changed in one story?  
What choice would you have made if you were Cinderella in each story?  
How would you rate the books?  
In which story was the weather more like the weather where you live?

**Formative Assessment(s):**

Teacher will assess the group’s double bubble maps.  
Teacher will use a rubric to assess the paragraphs of differences and similarities between weather in the two stories.

**Social Studies Activity (Brief Description):**

Evaluate the effects of different weather conditions on plants. Students will keep a daily science journal with observations, predictions and illustrations. Students will generate bar graphs differentiating the growth of the different plants.

**Supporting Standards:**

2.E.1.3, 2.MD.1, 2.MD.4, 2.MD.10, 2.CX.2.2

**Vocabulary:**

Climate, compare, contrast, weather, measure, centimeters, inches, change, tools, predict, growth, estimate, cause, effect

**Resources (print materials, technology, etc.):**

Plants, soil, water, ruler, UV lamp, fan

**Question Stems (Using *Revised Bloom’s Taxonomy*):**

How would you defend your position about which plant showed the most growth?  
Can you predict how these plants will look in 10 more days?  
What is the relationship between water and plant growth? wind and plant growth? sun and plant growth?

**Formative Assessment(s):**

Teacher will assess science journals and student-created bar graphs.

**Fine Arts Activity (Brief Description):**

Students will learn a water cycle song and create a dance to demonstrate the different vocabulary associated with the water cycle.

**Supporting Standards:**

2.E.1.2

**Vocabulary:**

Evaporation, precipitation, condensation, run-off, water cycle, clouds,

**Resources (print materials, technology, etc.):**

YouTube (<http://www.youtube.com/watch?v=okZBiy_IdBA> ), SonicWall login, visuals

**Question Stems (Using *Revised Bloom’s Taxonomy*):**

What is the relationship between condensation, evaporation, and precipitation?  
How can you demonstrate the water cycle using movement?  
What would happen if the water did not evaporate? did not condensate? if we had no precipitation?

**Formative Assessment(s):**

Teacher will observe student understanding of water cycle through dance and movements.

**Healthful Living Activity (Brief Description):**

Students will create a poster showing the different levels of ozone alerts and generate predictions of ozone levels for a week based on the weekly forecast. Students will describe each flag color/level and how it affects their daily living.

**Supporting Standards:**

2.E.1.1, 2.CX.2.2

**Vocabulary:**

ozone, exposure, alerts, predictions, pollution, impact

**Resources (print materials, technology, etc.):**

Internet, markers, posterboard

**Question Stems (Using *Revised Bloom’s Taxonomy*):**

What could happen if you go outside on a red alert day?  
How would you describe the meaning of the different colors?  
How would you justify today’s ozone color?  
Can you assess the importance of protecting our ozone layer?  
What can your family do to protect the ozone layer?  
How can you protect yourself from ozone exposure?

**Formative Assessment(s):**

Teacher will visually assess student-created posters and listen to group discussions of question stems.

**Writing Activity (Brief Description):**

Students will write an opinion piece evaluating the uses of sunscreen. Teacher will divide students into two groups and then debate the pros and cons of sunscreen use.

**Supporting Standards:**

2.PCH.2.2, W.2.8, SL.2.1, SL.2.1a, SL.2.6

**Vocabulary:**

debate, persuade, pros, cons, sunscreen, opinion, ozone, cancer, exposure, predict, benefits

**Resources (print materials, technology, etc.):**

Internet, sunscreen, visuals of damage from sun exposure, warnings

**Question Stems (Using *Revised Bloom’s Taxonomy*):**

How would you defend your position for/against sunscreen use?  
Can you assess the importance of wearing sunscreen?  
What would be the most important facts to consider about sun exposure?  
What examples can you find to support your position?  
What would the result be if you didn’t wear sunscreen?

**Formative Assessment(s):**

Teacher will assess by listening to student debates. Teacher will assess the written product using a rubric.

**Math Practices Activity (Brief Description):**

Students will research tools that would be used in a weather station and create appropriate tools (i.e. rain gauge, anemometer). Enrichment Activity: Students will create their own invention of a weather tool.

**Supporting Standards:**

2.E.1.2, 2.MD.1

**Vocabulary:**Rain gauge, thermometer, anemometer, weather station, measure

**Resources (print materials, technology, etc.):**

Internet, plastic bottle, windsock, directions to make weather tools, thermometers, Farmer’s Almanac

**Question Stems (Using *Revised Bloom’s Taxonomy*):**

What tools would you use to find data about rainfall? Temperature? Wind direction?  
What data would you use to predict the weather?  
Can you define temperature?   
Is there a relationship between rainfall and wind direction?  
How would this information be useful if you were planning to move to another state or planning a vacation?

**Formative Assessment(s):**

Teacher will assess the choice and creation of weather tools.

**Science Activity (Brief Description):**

Students will create a water cycle necklace that explains the water cycle process. Students will generate a key to define the colors of the beads they chose for the necklace. Enrichment Activity: Students will create a visual representation of the water cycle process, explaining each process.

**Supporting Standards:**

2.E.1.3, 2.V.3.1

**Vocabulary:**

Water cycle, evaporation, condensation, precipitation, run-off, collection, clouds

**Resources (print materials, technology, etc.):**

Beads, yarn, pictures, scissors

**Question Stems (Using *Revised Bloom’s Taxonomy*):**

What is the relationship between evaporation and condensation?  
What is the relationship between condensation and clouds? Precipitation?  
How would you organize the terms in order to show a water cycle?  
Can you explain the importance of run-off and collection?  
What problems would occur if there was a break in the water cycle?

**Formative Assessment(s):**

Teacher will assess the student-created visuals using a rubric.

**Math Activity (Brief Description):**

Using the tools created for the weather station, students will measure rainfall and wind direction as well as use a thermometer to measure temperature. Students will keep a daily math journal of measurements and predictions, and record information on line plots.

**Supporting Standards:**

2.MD.9, 2.MD.1, 2.G.2.1

**Vocabulary:**

Line plots, inches, centimeters, measure, estimate, prediction

**Resources (print materials, technology, etc.):**

Math journals, student-created rain gauge and anemometer, thermometer, rulers

**Question Stems (Using *Revised Bloom’s Taxonomy*):**

What would be the result of too much or too little rain?  
How would this information be useful if you were planning a garden? Flying an airplane? Building a house? Planning a vacation?  
How would your basic needs change if you didn’t enough rain? Too much rain?

**Formative Assessment(s):**

Teacher will assess math journals and line plots.

**Summative Assessment (Brief Description):**

Students will create a digital newscast on weather cycles and present it to the class. These activities will incorporate different aspects of the unit. Students will reflect on their own group’s presentation and critique other group’s presentations using the rubric. Students will also compare and contrast their newscast to a real newscast.

**Resources:**digital recording devices (i.e. iPad, iPod, digital camera), green screen, news set, rubric  
  
  
**Directions:**

1. Students will be broken into groups to create a newscast that incorporates different aspects of cycles (i.e. weather forecast, water cycle dance, ozone alerts, sunscreen debate, weather tools, weather cycle visuals).
2. Students will be assigned jobs to help produce their newscast (i.e. reporters, digital recorder, timekeeper).
3. Groups will decide how to best incorporate their information into a digital recording.
4. Groups will present newscasts to be critiqued by other groups based on a rubric.
5. Each student will create a reflection on how cycles affect their daily lives.
6. Students will write a paragraph comparing their newscast to a real news broadcast.